

SPK

# **Notice of Allowability**

Application No.

10/814,011

Examiner

Rhonda S. Peace

Applicant(s)

UCHIDA ET AL.

Art Unit

2874

## **-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's submission filed 5/1/2006.
2. ☒ The allowed claim(s) is/are 14-27 and 37-114.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 05012006
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's ~~Amendment~~ Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*John D. Lee*  
**John D. Lee**  
**Primary Examiner**

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 5/1/2006 has been entered.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 5/1/2006 was filed in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Allowable Subject Matter***

*Claims 14-18 are allowed.*

The following is an examiner's statement of reasons for allowance of claims 14-18: The relevant prior art does not disclose, nor does it reasonably suggest an optoelectronic circuit as has been described in the proceeding sections above and where the reflector is a concave reflector, a convex reflector, a conical reflector, a paraboloid of revolution reflector, or a pyramidal reflector. These reflector types are not known to be used in the optical *circuit* art, and their use therein is considered novel over the prior art.

*Claim 37 is allowed.*

The following is an examiner's statement of reasons for allowance of claim 37:

The most relevant prior art does not disclose, nor does it reasonably suggest an optoelectronic module comprising an emitter or detector, an electronic circuit, one or more optical lenses, and a reflector, where the lenses and the reflector form a unitary optical element *with a biconvex top surface and an internally reflecting bottom surface*.

*Claim 114 is allowed.*

The following is an examiner's statement of reasons for allowance with respect to claim 114: The relevant prior art does not disclose, nor does it reasonably suggest an optoelectronic module comprising a unitary optical element with a *biconvex* top surface and an internally reflecting bottom surface.

Prior art submitted in the IDS document filed 5/1/2006 does not disclose or reasonably suggest the patentable limitations in the independent claims cited above.

The following is a brief note on each of the documents provided on the IDS filed 5/1/2006, and their relation to the current invention.

- Lindsey (US 3777154) discloses an optical data processing system, but does not disclose a reflector satisfying the limitations placed on the reflector of the current invention, as described above.
- Updegrave (US 6233376) discloses embedded fiber optical circuit boards, but does not disclose a reflector satisfying the limitations placed on the reflector of the current invention, as described above.

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- JDL
- Okayasu (US 6257771) discloses a hybrid electrical/optical circuit board having a planar reflector to reflect light at a substantially ninety-degree angle from a waveguide within a substrate to a receiver disposed on the substrate surface. However, <sup>Okayasu</sup>~~Tourne~~ does not disclose the use of a reflector satisfying the *geometrical* limitations of the reflector of the current invention.
  - Meis et al (US 6427034) discloses a flexible optical circuit lacking a reflector.
  - Li (US 6439895) discloses a pin-free socket for use with an electric/optical circuit board that is lacking a reflector.
  - Tourne (US 2002/0176671) discloses a fiber optic circuit connector that has a planar reflector disposed to reflect light at a substantially ninety-degree angle. However, Tourne does not disclose the use of a reflector satisfying the *geometrical* limitations of the reflector of the current invention.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

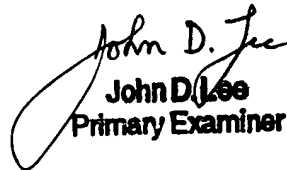
**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rhonda S. Peace  
Examiner  
Art Unit 2874

  
John D. Lee  
Primary Examiner